

Amendments to the Claims:

Claims 1-55 were pending in this application. Please cancel claims 38-42 and amend claims 1-37 and 43-55 as follows:

- 1 1. (currently amended) A communication system comprising:
2 a plurality of subscriber units, each subscriber unit sending and
3 receiving information packets using a wireless communication link;
4 a plurality of access points, each access point forming a coverage area
5 for exchanging information packets with subscriber units within the coverage area
6 through at least one wireless communication link; and
7 a plurality of distribution points, each distribution point in
8 communication with at least one access point and with at least one additional
9 distribution point, each distribution point operative to
10 (a) receive an information packet for distribution to a destination
11 within the communication system,
12 (b) determine if the information packet destination is to one of the
13 plurality of subscriber units ~~a subscriber unit~~ within the
14 coverage area of an access point in communication with the
15 distribution point,
16 (c) forward the information packet to the access point defining the
17 coverage area containing the subscriber unit if the information
18 packet destination is to one of the plurality of subscriber units
19 ~~a subscriber unit~~ within the coverage area of the access point
20 in communication with the distribution point, and
21 (d) forward the information packet to one of the additional
22 distribution points in communication with the distribution
23 point if the information packet destination is not to one of the
24 plurality of subscriber units ~~a subscriber unit~~ within the
25 coverage area of the access point in communication with the
26 distribution point.

1 2. (currently amended) The communication system of claim A
2 ~~communication system as in claim~~ 1 wherein each information packet includes at least
3 one of voice, video, and data information.

1 3. (currently amended) The communication system of claim A
2 ~~communication system as in claim~~ 1 wherein at least one ~~an~~ information packet
3 comprises voice information.

1 4. (currently amended) The communication system of claim A
2 ~~communication system as in claim~~ 1 wherein at least one ~~an~~ information packet
3 comprises video information.

1 5. (currently amended) The communication system of claim A
2 ~~communication system as in claim~~ 1 wherein at least one ~~an~~ information packet
3 comprises data.

1 6. (currently amended) The communication system of claim A
2 ~~communication system as in claim~~ 1 wherein at least one ~~an~~ information packet
3 comprises streaming audio.

1 7. (currently amended) The communication system of claim A
2 ~~communication system as in claim~~ 1 wherein at least one ~~an~~ information packet
3 comprises streaming video.

1 8. (currently amended) The communication system of claim A
2 ~~communication system as in claim~~ 1 wherein the communication link is a symmetric
3 link.

1 9. (currently amended) The communication system of claim A
2 ~~communication system as in claim~~ 1 wherein the communication link is an
3 asymmetric link.

4 10. (currently amended) The communication system of claim A
5 ~~communication system as in claim~~ 1 wherein each distribution point is in wireless
6 communication with at least one of the at least one access point.

7 11. (currently amended) The communication system of claim A
8 ~~communication system as in claim~~ 1 wherein at least one distribution point is in
9 wireline communication with at least one of the at least one access point.

10 12. (currently amended) The communication system of claim A
11 ~~communication system as in claim~~ 1 wherein at least one of the at least one access
12 point is packaged with a distribution point.

13 13. (currently amended) The communication system of claim A
14 ~~communication system as in claim~~ 1 wherein at least one of the plurality of access
15 points ~~access point~~ is not collocated with any distribution point.

1 14. (currently amended) The communication system of claim A
2 ~~communication system as in claim~~ 1 wherein at least one of the plurality of
3 distribution points ~~distribution point~~ is in wireless communication with at least one
4 additional distribution point of the plurality of distribution points.

1 15. (currently amended) The communication system of claim A
2 ~~communication system as in claim~~ 1 wherein the plurality of distribution points forms
3 a wireless network of distribution points.

1 16. (currently amended) The communication system of claim A
2 ~~communication system as in claim~~ 1 further comprising a communication system
3 interface device operative to format information contained in the information packet
4 to pass through a second communication system, the distribution point further
5 operative to receive an information packet for distribution within the second
6 communication system and to send the information packet to the ~~second~~
7 communication system interface device.

1 17. (currently amended) The communication system of claim A
2 ~~communication system as in claim~~ 16 wherein the second communication system
3 comprises a wireless telecommunication system.

1 18. (currently amended) The communication system of claim A
2 ~~communication system as in claim~~ 16 wherein the second communication system
3 comprises a wireline telecommunication system.

1 19. (currently amended) The communication system of claim A
2 ~~communication system as in claim~~ 16 wherein the second communication system
3 comprises a data network.

1 20. (currently amended) The communication system of claim A
2 ~~communication system as in claim~~ 16 wherein the second communication system
3 comprises a video distribution system.

1 21. (currently amended) The communication system of claim A
2 ~~communication system as in claim~~ 1 further comprising a telecommunication system
3 interface device operative to format information contained in the information packet
4 to pass through a telecommunication system, the distribution point further operative
5 to:

6 receive at least one information packet from the telecommunication
7 system interface device;
8 determine if the at least one information packet destination is to a
9 subscriber unit within the coverage area of an access point in communication with the
10 distribution point;
11 forward the at least one information packet to the access point defining
12 the coverage area containing the subscriber unit if the information packet destination
13 is to a subscriber unit within the coverage area of the access point in communication
14 with the distribution point; and
15 forward the at least one information packet to one of the additional
16 distribution points in communication with the distribution point if the information
17 packet destination is not to a subscriber unit within the coverage area of the access
18 point in communication with the distribution point.

1 22. (currently amended) The communication system of claim A
2 ~~communication system as in claim 1~~ wherein at least one distribution point in the
3 plurality of distribution points is further in communication with an Internet gateway,
4 the distribution point further operative to exchange packets with the Internet gateway.

1 23. (currently amended) The communication system of claim A
2 ~~communication system as in claim 1~~ wherein at least one distribution point in the
3 plurality of distribution points comprises an asynchronous transfer mode switch.

1 24. (currently amended) The communication system of claim A
2 ~~communication system as in claim 1~~ wherein at least one distribution point in the
3 plurality of distribution points comprises an Internet protocol router.

1 25. (currently amended) The communication system of claim A
2 ~~communication system as in claim 1~~ wherein at least one distribution point in the
3 plurality of distribution points comprises an Ethernet router.

1 26. (currently amended) The communication system of claim A
2 ~~communication system as in claim~~ 1 wherein at least one distribution point in the
3 plurality of distribution points comprises a TDM switch.

1 27. (currently amended) The communication system of claim A
2 ~~communication system as in claim~~ 1 wherein each subscriber unit of the plurality of
3 subscriber units is autonomously registered when the subscriber unit first enters the
4 coverage area of a radio access point within the communication system.

1 28. (currently amended) The communication system of claim A
2 ~~communication system as in claim~~ 27 wherein each subscriber unit of the plurality of
3 subscriber units maintains registration as the subscriber unit moves from one
4 coverage area into another coverage area.

1 29. (currently amended) The communication system of claim A
2 ~~communication system as in claim~~ 27 wherein each subscriber unit of the plurality of
3 subscriber units is autonomously deregistered when the subscriber unit leaves the
4 communication system.

1 30. (currently amended) The communication system of claim A
2 ~~communication system as in claim~~ 1 wherein a quality error bit rate is established for
3 each subscriber unit based on the location of the subscriber unit within the
4 communication system.

5 31. (currently amended) The communication system of claim A
6 ~~communication system as in claim~~ 1 wherein a quality error bit rate is established for
7 each subscriber unit based on a class of service.

8 32. (currently amended) The communication system of claim A
9 ~~communication system as in claim~~ 1 wherein a quality error bit rate is established for
10 each subscriber unit based on a grade of service.

11 33. (currently amended) The communication system of claim A
12 ~~communication system as in claim~~ 1 wherein a quality error bit rate is established for
13 each subscriber unit based on a rate of service.

1 34. (currently amended) The communication system of claim A
2 ~~communication system as in claim~~ 1 wherein the subscriber unit is a fixed device.

1 35. (currently amended) The communication system of claim A
2 ~~communication system as in claim~~ 1 wherein the subscriber unit is a non-fixed
3 device.

1 36. (currently amended) The communication system of claim A
2 ~~communication system as in claim~~ 1 wherein the distribution point dynamically
3 allocates bandwidth when the information packet is forwarded to one of the additional
4 distribution points in communication with the distribution point.

1 37. (currently amended) The communication system of claim A
2 ~~communication system as in claim~~ 1 wherein bandwidth is dynamically allocated
3 when an information packet is exchanged between one of the plurality of subscriber
4 units and one of the plurality of access points.

1 38.-42. (canceled) .

1 43. (currently amended) A communication system comprising:

2 a plurality of distribution points, each distribution point in
3 communication with at least one additional distribution point in the plurality of
4 distribution points, each distribution point operative to rout information packets;
5 a plurality of subscriber units, each subscriber unit operative to
6 communicate information packets to a destination subscriber unit through at least one
7 distribution point in the plurality of distribution points; and
8 a supervisor in communication with each distribution point, the
9 supervisor operative to identify the distribution point with which each subscriber unit
10 is communicating and to provide each distribution point with a listing of to which of
11 the at least one additional distribution point in communication with the distribution
12 point information packets should be forwarded for each possible destination
13 distribution point, the listing based on maintaining a minimum quality of service in
14 a path to the destination distribution point.

1 44. (currently amended) A communication system comprising:
2 a plurality of distribution points, each distribution point in
3 communication with at least one additional distribution point in the plurality of
4 distribution points, each distribution point operative to forward each information
5 packet received by the distribution point to another distribution point based on a
6 destination address in the packet and on a logical address of each of the plurality of
7 distribution points; and
8 a supervisor in communication with each distribution point, the
9 supervisor operative to provide each distribution point with a listing of to which of
10 the at least one additional distribution point in communication with the distribution
11 point information packets should be forwarded for each possible destination
12 distribution point, the listing based on maintaining a minimum quality of service in
13 a path ~~the path~~ to the destination distribution point.

1 45. (currently amended) A method of automatically adding a new
2 distribution point into a network of existing distribution points, each ~~existing~~

3 distribution point in the network of existing distribution points in communication with
4 at least one additional distribution point in the network of existing distribution points,
5 each distribution point in the network of existing distribution points operative to
6 forward an information packet to one of the additional distribution points in the
7 network of existing distribution points in communication with the ~~existing~~ distribution
8 point in the network of existing distribution points based on a destination address in
9 the information packet, the method comprising:
10 transmitting a sign-on signal from the new distribution point;
11 receiving the sign-on signal in at least one ~~existing~~ distribution point
12 in the network of existing distribution points;
13 assigning a routing address to the new distribution point; and
14 providing each ~~existing~~ distribution point in the network of existing
15 distribution points with an indication as to which additional distribution point in the
16 network of existing distribution points ~~in communication with the existing distribution~~
17 ~~point~~ each information packet having a destination address specifying the new
18 distribution point is to be forwarded.

1 46. (currently amended) A method of automatically removing a
2 distribution point from a network of distribution points, each distribution point in the
3 network of distribution points in communication with at least one additional
4 distribution point, each distribution point operative to forward an information packet
5 to one of the additional distribution points in communication with the distribution
6 point based on a destination address in the information packet, the method
7 comprising:
8 detecting the absence of signal from a distribution point to be removed
9 from the network;
10 determining a connectivity between distribution points remaining after
11 removing the distribution point detected with the absence of signal; and
12 providing each remaining distribution point with an indication as to
13 which distribution point in communication with the remaining distribution point each

14 information packet having a destination address specifying the remaining new
15 distribution point is to be forwarded.

1 47. (currently amended) A distribution point for use in a
2 communication system comprising a plurality of networked distribution points, the
3 distribution point comprising:

4 at least one front end communication interface, each front end interface
5 in communication with an access point, the access point in wireless communication
6 with subscriber units currently assigned to the distribution point;

7 at least one back end communication interfaces, each back end
8 interface in communication with a back haul communication device, at least one back
9 haul communication device transferring packets with a back haul communication
10 device in another of the plurality of networked distribution points; and

11 an intelligent packet switching device operative to

- 12 (a) determine a destination for each received packet,
13 (b) determine if the destination is to a subscriber unit currently
14 assigned to the distribution point,
15 (c) send the packet to the ~~destination~~ subscriber unit if the
16 ~~destination~~ subscriber unit is currently assigned to the
17 distribution point,
18 (d) if the destination is not to a subscriber unit currently assigned
19 to the distribution point, determine if the destination is to a
20 subscriber unit currently assigned to any other distribution
21 point in the communication system, and
22 (e) if the subscriber unit is currently assigned to any other
23 distribution point in the communication system, identify
24 another distribution point in back haul communication with the
25 distribution point to which the packet should be forwarded and
26 forward the packet to the identified distribution point.

1 48. (currently amended) The ★ distribution point as in claim 47
2 wherein at least one front end communication interface is connected to an antenna,
3 thereby permitting the distribution point to be in wireless communication with at least
4 one radio access point.

1 49. (currently amended) The ★ distribution point as in claim 47
2 wherein at least one front end communication interface is in wireline connection with
3 a radio access point.

1 50. (currently amended) The ★ distribution point as in claim 47
2 wherein transferring packets between a back haul communication device within the
3 distribution point and a back haul communication device in another of the plurality
4 of networked distribution points is a wireless transfer.

1 51. (currently amended) The ★ distribution point as in claim 47
2 wherein transferring packets between a back haul communication device within the
3 distribution point and a back haul communication device in another of the plurality
4 of networked distribution points is through a wireline connection.

1 52. (currently amended) The ★ distribution point as in claim 47
2 wherein the intelligent packet switching device comprises an asynchronous transfer
3 mode switch.

1 53. (currently amended) The ★ distribution point as in claim 47
2 wherein the intelligent packet switching device comprises an Internet protocol router.

1 54. (currently amended) The ★ distribution point as in claim 47
2 wherein the intelligent packet switching device comprises an Ethernet router.

- 1 55. (currently amended) The ~~A~~ distribution point as in claim 47
- 2 wherein the intelligent packet switching device comprises a TDM switch.